



Public-sector union membership research: methodology

March 2021

This is the methodology that Ballotpedia staff use when counting public-sector union members.

How to use this document

This document is broken down into the following sections:

1. **Research aim** – A brief description of the research goals.
2. **Limitations of existing research and other challenges** – A survey of the existing field of research, its limitations, and other challenges.
3. **Methodology** – A detailed discussion of the approach to this research, including the following:
 - a. **Key terms and definitions** – Definitions of the key terms and concepts central to the research.
 - b. **Scope** – A description of the scope of inquiry (e.g., how many jurisdictions are being researched, and why those jurisdictions).
 - c. **Information being collected** – A description of the inquiry submitted to each jurisdiction.
 - d. **How the data is processed** – A detailed discussion of the process by which we extract the key data from the original files we receive and present them in a single spreadsheet to facilitate year-to-year and state-by-state comparisons.
4. **Appendix** – A more expansive discussion of the limitations of existing research and other challenges.

Research aim

The aim of this research is to compile data on membership numbers and revenue from dues for a representative sample¹ of public-sector unions in each of 35 states. Data is collected in a consistent, accurate, and thorough way, making it a reliable source for a variety of individuals, groups, and researchers.

¹ The size of this sample, and the method for selecting it, is addressed below under "[Scope](#)."

Why is this information worth compiling? Public-sector unions are a major force in American politics. According to the Center for Responsive Politics, unions [have spent \\$1 billion](#) directly on federal elections over the past 20 years. From 2019-2020, the National Education Association; the American Federation of Teachers; and the American Federation of State, County, and Municipal Employees – three of the nation's largest public-sector unions – spent a combined \$57.4 million in campaign contributions.² These three unions also spent a combined \$28.4 million in independent expenditures and electioneering communications in federal elections.³

A broader look at union political spending [from the National Institute for Labor Relations Research](#) - analyzing PAC spending, 527 committees and expenditures at the state level - shows that unions spent more than \$2 billion during just the 2018 election cycle alone.

In sum, union membership drives union spending and political activity, which can have a significant effect on politics at the federal, state, and local levels.

Interest in public-sector union membership has increased further in the wake of the U.S. Supreme Court's decision in *Janus v. American Federation of State, County, and Municipal Employees* (*Janus v. AFSCME*). In this 2018 ruling, the court held that public-sector unions cannot require non-member employees to pay dues or fees to cover the costs of union activities. Union officials, union members, policy advocates, commentators, and the general public have speculated as to the effect *Janus* might have on unions' membership and revenues and, by extension, their political influence. However, limitations in the existing data sources, described in greater detail below, complicate efforts to calculate the year-by-year membership and revenue totals necessary to make this determination.

Limitations of existing research and other challenges

Three challenges involved in compiling this information are the amount of information that is publicly available, disclosure limitations and union organizational structures. The easiest way to counter this is to go directly to the source and get the information from the public entities themselves.

- ❖ **Information availability: There is little existing, publicly available work that presents public-sector union membership and revenues data on a consistent, state-by-state basis.** The most frequently cited sources and media reports base their figures on the Current Population Survey, conducted by the U.S. Census Bureau on behalf of the Bureau of Labor Statistics. These data sets are estimates, not precise measurements.⁴ The surveys used to build these data sets rely on sometimes confusing questions and inconsistent sample sizes that change from survey to survey, sometimes drastically. In order to measure the effects of the states' disparate

² [OpenSecrets.org, "Labor," accessed February 1, 2021.](#)

³ [OpenSecrets.org, "2020 Outside Spending, by Group," accessed February 1, 2021.](#)

⁴ The Current Population Survey is a monthly sample survey of approximately 60,000 households. The survey collects information on a variety of labor and employment indicators, including union affiliation and employment status.

public-sector labor laws, and the states' different responses to the *Janus* decision, accurate state-specific information is crucial.⁵

- ❖ **Disclosure limitations: Public-sector unions are generally not required to publicly disclose information about their membership and revenues.** Under federal law, unions representing public-sector employees exclusively are not required to file financial reports with the U.S. Department of Labor. For unions subject to filing requirements (i.e., those representing at least some private-sector workers), these reports are the single best sources for precise membership and financial data. However, absent these reports, as is the case with most public-sector unions, it is difficult to locate up-to-date membership and revenue data at the state and local level.
- ❖ **Union organizational structure: Complex union organizational structures make it difficult to compile a comprehensive list of the nation's public-sector unions. The absence of disclosure mandates for public-sector unions makes it impossible to determine membership and revenues for all unions.** It is easy to find a list of the largest public-sector unions. But under the umbrella of these national associations are thousands of local unions. There is no comprehensive list of unions which tracks membership and revenue data.

Methodology

In pursuit of the research aim, and in light of the aforementioned challenges, this is the methodological approach, with the methodology broken down into the following sections:

1. **Key terms and definitions:** In this section, the key terms relative to the purposes of the research are defined.
2. **Scope:** A description of the scope of the research efforts (namely, how many unions and how many jurisdictions are being researched in each state, and how these unions and jurisdictions were selected).

⁵ Another issue is the absence of information on the total number of employees represented by a given union (or, put another way, the maximum number of *possible* public-sector union members). Ideally, one would use this figure to calculate a ratio of union representation. Why is it important to know this number? Consider a state that, prior to *Janus*, had 50,000 public-sector union members. Now assume that a census of the state's public-sector union members taken three years after *Janus* shows that this number is now 45,000. Based on this, one might assume that the state's public-sector union membership has fallen by 10 percent. This is, strictly speaking, accurate. However, consider the following scenario. In the three years since *Janus*, the state's budget has grown considerably, resulting in the hiring of 5,000 additional staff, all of whom would be eligible to join a public-sector union. According to the pre-*Janus* count in our hypothetical state, there were 50,000 public-sector union members; 50,000 was also the maximum number of *possible* public-sector union members at that time. Under the scenario described here, the maximum number of *possible* public-sector union members has risen to 55,000, but there are only 45,000. If one compares the number of *actual* union members (45,000) to the maximum number of *possible* public-sector union members (55,000), that suggests a post-*Janus* fall-off of roughly 18 percent. If a researcher is attempting to determine to what extent, if any, *Janus* has caused a fall-off in public-sector union membership, the researcher needs to know not only what the membership numbers were in a given state pre-and-post-*Janus*. The researcher would also have to know whether the number of available union jobs has increased, decreased, or stayed roughly the same in that state, and by what exact extent. Although we asked each entity to which we reached out for its maximum number of *possible* public-sector union members, this information was seldom provided.

3. **Information being collected:** The outreach efforts are outlined. This includes a description of targeted entities and the substance of the inquiries.
4. **How the data is processed:** This provides a detailed description of the master data spreadsheet and data extraction practices. To illustrate both the organization of the spreadsheet, and the processes for extracting and presenting data, a step-by-step description of the methods by which the data is culled from original source documents and incorporated into the master spreadsheet is provided.

Key terms and definitions

The key terms below are useful in understanding the context and background of the information in this report.

- ❖ **Union member:** For the purposes of this research, a union member is any public-sector employee who pays dues to the union that represents his or her bargaining unit.
- ❖ **Agency fee payer:** An agency fee payer was a public-sector worker who paid fees, but not full dues, to the union that represented his or her bargaining unit. Agency fees differed from full dues in that the former could not be used for explicitly political purposes. Instead, agency fees could only be used to fund such activities as contract negotiations, grievance arbitration, etc.
 - *Janus v. AFSCME* disallowed the mandatory payment of agency fees. For that reason, data for periods subsequent to *Janus* reflects zero agency fee payers.
- ❖ **Bargaining unit:** A bargaining unit is a group of similar employees at a job site.
 - Example: A single bargaining unit might comprise all of a city's police officers.
 - Example: A city's police department might comprise several bargaining units: one for detectives, one for patrolmen, etc.
- ❖ **Public-sector employee:** A public-sector employee is an individual who works directly for a governmental entity, such as a school district, city, county, or state.
- ❖ **Public-sector union:** A public-sector union is a union that bargains with a government entity.
- ❖ **One year:** In order to track changes in membership over time, it is necessary to establish points of comparison. The most intuitive point of comparison, and the one used here, is one year. For the purposes of this research, a year is defined as the 12-month period between two months for which we have data. Generally, we use data from June of each year, since that was the month the *Janus* case was decided and went into effect. For example, if a jurisdiction provides membership information for June 2017, June 2018, and June 2019, we calculate whatever changes occurred in the years elapsing between June 2017 to June 2018 and June 2018 to June 2020. If a jurisdiction does not provide information for June, or the data is compromised in some way, we may use data from either May or April.

Scope

In each of 35 states, we identify the five largest cities, counties, and school districts by population. Our assessment is that this sample size is sufficient to facilitate state-by-state comparisons and isolate trends in union membership and revenues year-to-year. We supplement this data with membership information from state employee unions (e.g., the Indiana State Employees Association, which represents state-government workers). In each of these 35 states, the state government is the largest public-sector employer.⁶

Other researchers and interested parties (e.g., think tanks, unions themselves, media outlets, etc.) at times apply different methods to collecting similar data. Consequently, the numbers gleaned from our research, conducted in accordance with this methodology, may differ from the numbers presented by others. For example:

- ❖ A researcher relying exclusively on federal LM reports will be restricted to those unions with at least some private-sector members. Because this researcher is collecting data from a different set of union and jurisdictions, those results will necessarily differ from ours.
- ❖ A media outlet that relies on self-reported numbers from the unions themselves may come up with different numbers than we have. This can be the consequence of differences in reporting between jurisdictions and the unions themselves.

Information being collected

Having identified contacts for the jurisdictions that are the subject of the research, we reach out directly to government officials (e.g., city clerks or treasurers, human resources personnel, etc.) to obtain membership information for the unions representing public-sector workers in each of those jurisdictions. The following email is sent to each of them:

To whom it may concern:

Through your state's public records act, I'm requesting the following information for your public entity:

- ❖ The total number of employees having union dues and/or fees withheld from their paychecks.
- ❖ The total number of employees covered by union collective bargaining agreements.
- ❖ I'd like the above information for each pay period in April, May and June of 2017, 2018, 2019 and 2020.
- ❖ What are the costs for dues/fees for union members and fee payers?

Please send the information to (unionresearch@ballotpedia.org). Thank you!

⁶ This methodology can be scaled out to encompass more jurisdictions.

Why multiple years of data? In order to assess the impact of a variety of recent developments in public-sector labor law (e.g., *Janus v. AFSCME*), it is necessary to obtain membership information for multiple years. Only by comparing data on a year-to-year basis can we identify correlations between events and increases or decreases in membership.

What if jurisdictions provide information in conflicting formats? Data is provided in different formats – spreadsheets, PDFs, etc. – and in different ways. In order to facilitate comparisons between jurisdictions and states, we analyze the raw data and render it in a stable format. This information is aggregated for the public entity - for example, we combine all the data from jurisdictions in one state to give one number for the number of union members in that state.

How the data is processed

A general description of the data extraction process

Once we have a response in hand, we extract and process the data as follows:

1. We first download the data and save it in its original format. All data is preserved in its original format for potential use by other researchers.
 - a. Because some of the original data sources provide personal information about individual employees, we are not making those sources instantly accessible to the public. Researchers interested in availing themselves of these sources should contact us at editor@ballotpedia.org.
2. We review the data file in its entirety in order to understand how the information is presented. The following points are taken into consideration (these points, in turn, inform our data extraction approach):
 - a. *How the information is broken down:* Are figures provided on a by-union basis? Are figures provided on a department-level basis? Are figures presented as aggregate totals, without distinctions being made by union or department?
 - b. *Depth of data:* Is information available for all requested years, or did the jurisdiction provide information for select requested years?
 - c. *File format:* Is the data provided in spreadsheet format? If not, can the data be extracted automatically or must it be taken by hand?
3. If information is provided in spreadsheet form, we copy-and-paste it wholesale into our main tracking spreadsheet. We make minor conforming edits but present the data in substantially the same format in which we received it.
4. If information is provided in non-spreadsheet form and there is no means by which the data can be reliably extracted automatically, we carefully take down the data by hand, instituting internal quality control procedures to protect against the possibility of mistaken transcription.

Our master data spreadsheet

Our [master data spreadsheet](#) is organized into six tabs:

1. **Membership analysis:** This tab summarizes year-by-year membership data for each state. It is broken out into the following columns:
 - a. State
 - b. Total dues-paying members
 - i. June 2017: total dues-paying members per state
 - ii. June 2018: total dues-paying members per state
 - iii. June 2019: total dues-paying members per state
 - iv. 2017-2020 change (raw number): the change, in raw numbers, in dues-paying membership between June 2017 and June 2020
 - v. 2017-2020 change (percentage): the change, as a percentage, in dues-paying membership between June 2017 and June 2020
 - c. Total agency-fee members
 - i. June 2017: total agency-fee members per state
 - ii. June 2018: total agency-fee members per state
 - iii. June 2019: total agency-fee members per state
 - iv. 2017-2020 change (raw number): the change, in raw numbers, in agency-fee membership between June 2017 and June 2020
 - v. 2017-2020 change (percentage): the change, as a percentage, in agency-fee membership between June 2017 and June 2020
2. **Dues analysis:** This tab summarizes year-by-year dues revenue data for each state. It is broken out into the following columns:
 - a. State
 - b. Total dues
 - i. June 2017: total dues per state
 - ii. June 2018: total dues per state
 - iii. June 2019: dues per state
 - iv. 2017-2020 change (raw amount): the change, in raw dollars, in total dues between June 2017 and June 2020
 - v. 2017-2020 change (percentage): the change, as a percentage, in total dues between June 2017 and June 2020
 - c. Total agency fees
 - i. June 2017: total agency fees per state
 - ii. June 2018: total agency fees per state
 - iii. June 2019: total agency fees per state
 - iv. 2017-2020 change (raw amount): the change, in raw dollars, in agency fees between June 2017 and June 2020
 - v. 2017-2020 change (percentage): the change, as a percentage, in agency fees between June 2017 and June 2020
3. **2017:** This tab lays out all available data for each jurisdiction and union from which we were able to obtain a response. For each jurisdiction and union or bargaining unit, the following information is presented for April 2017, May 2017, and June 2017:
 - a. Dues-paying members
 - b. Total dues
 - c. Agency-fee payers
 - d. Total fees

4. [2018](#): This tab provides the same information, in the same format, as described above for the 2017 tab.
5. [2019](#): This tab provides the same information, in the same format, as described above for the 2017 tab.
6. [2020](#): This tab provides the same information, in the same format, as described above for the 2017 tab.

A step-by-step illustration

The following is a step-by-step illustration of part of the data extraction process for one jurisdiction:

1. We emailed our inquiry to the city of Irvine, California, on Nov. 10, 2020. We received a response on Nov. 24, 2020. That response took the form of a PDF, a screenshot of which is provided below:

City of Irvine Dues Count

Bargaining Unit ICEA	Bargaining Unit IPEA	Bargaining Unit ASAP	Bargaining Unit IPA	Bargaining Unit IPMA	Total Count of Dues Collected	Bi-Weekly Payroll Post Date
201	59	104	197	12	573	4/7/2017
201	61	105	197	12	576	4/21/2017
203	61	105	197	11	577	5/5/2017
206	61	105	197	11	580	5/19/2017
205	60	105	200	11	581	6/2/2017
204	60	107	202	11	584	6/16/2017
206	59	107	203	11	586	6/30/2017

2. We first add this data to the year-specific tabs on our master data spreadsheet. The screenshot above includes information for one year: 2017. Information is broken down by pay period. In cases like this, we extract data for the last pay period of the month under review (e.g., 4/21/2017 would stand in for April 2017 on our spreadsheet). The following is a description of how the column headings and individual data points above correspond with data entries on our master spreadsheet (the screenshots below highlight these data points as presented on our spreadsheet):
 - a. Bargaining Unit ICEA > Column E: Union or bargaining unit
 - b. 4/21/2017: 201 > 2017 tab: Column F: Dues-paying members (April)
 - c. 5/19/2017: 201 > 2017 tab: Column J: Dues-paying members (April)
 - d. 6/30/2017: 206 > 2017 tab: Column N: Dues-paying members (April)

Public-sector union membership – data analysis ☆ 📁 ☁

File Edit View Insert Format Data Tools Add-ons Help [Last edit was 2 minutes ago](#)

100% \$ % .0 .00 123 Default (Ari... 10 B I S A

fx	California									
	A	B	C	D	E	F	G	H	I	
1						April				
2	State	Jurisdiction	Jurisdiction type	Data record	Union or bargaining unit	Dues-paying members	Total dues	Agency fee payers	Total fees	
48	California	Irvine	City	Link	Bargaining Unit ICEA	201	N/A	0	\$0.00	

	J	K	L	M	N	O	P	Q
	May				June			
	Dues-paying members	Dues amount	Agency fee payers	Agency fees amount	Dues-paying members	Dues amount	Agency fee payers	Agency fees amount
	206	N/A	0	\$0.00	206	N/A	0	\$0.00

- Because the file provided by the city of Irvine did not include information about agency-fee payers or dues revenues, those fields are left blank on our spreadsheet (as reflected above).
- The data from the 2017 tab automatically populates the membership analysis tab (specifically, the June 2017 membership data for Bargaining Unit ICEA is incorporated in cell C3, highlighted on the screenshot below).

Public-sector union membership – data analysis ☆ 📁 🔄 Saving...

File Edit View Insert Format Data Tools Add-ons Help [Last edit was seconds ago](#)

100% \$ % .0 .00 123 Default (Ari... 10 B I S A

fx							
	A	B	C	D	E	F	G
1		Total dues-paying members					
2	State	June 2017	June 2018	June 2019	June 2020	2017-2020 change (raw number)	2017-2020 change (percentage)
3	California	13,103	13,101	12,629	12,307	-796	-6.07%

Appendix: Limitations of existing research and other challenges

There are two main ways public-sector union membership information is currently tracked: through the annual survey from the Bureau of Labor Statistics (BLS) and through federal LM reports. Each has significant limitations.

BLS

The annual BLS union survey is conducted by the U.S. Department of Labor. Its data comes from two questions on the U.S. census survey. The key problem is that the sample size changes significantly between surveys, often resulting in wide swings in the results, particularly when this information is broken down at the state level.

The conservative think-tank, the Freedom Foundation, [criticizes the BLS survey](#) for “weaknesses in the underlying survey data, combined with small sample sizes at this level, [which] can make the estimates unreliable.”

A [separate report](#) on union membership in Illinois, partially funded by labor unions, criticizes the BLS survey on that and other grounds. In sum:

There are limitations to the CPS-ORG dataset. First, the data reports a worker’s state of residence rather than state of employment, so the results may be biased by workers who live in one state but work in another (e.g., living in Illinois but working in Missouri) and vice-versa. CPS-ORG data is also based on household survey responses. Certain individuals such as undocumented workers may also be underreported if they are more difficult to reach by survey officials. Finally, every surveyed worker does not reply to the union membership question. For example, in 2019, union membership data was only available for 4,320 of the 4,741 surveyed workers (91.1 percent) in Illinois. While this does not impact unionization rates, estimates are likely underreported for both total union workers and total nonunion employees.

LM reports

Every union representing any private-sector worker must file an annual “LM report” with the U.S. Department of Labor. These reports, particularly the LM-2 report, are extremely thorough, including extensive revenue, spending, and membership data.

The key data issue here is that the vast majority of public-sector unions at the state level represent only public employees and are not required to file LM reports. Furthermore, fiscal years generally vary from union to union, meaning LM reports are released at sporadic intervals. The data reported also tends to lag. For instance, assume you are looking for information on the AFSCME branch in Connecticut as of June 2020. The fiscal year for the union ends on

December 31, 2020. The LM report is not due for another four months after the end of the reporting period. This means the data would not become available until April 2021.

Other challenges

The three major public-sector unions – the National Education Association; the American Federation of Teachers; and the American Federation of State, County, and Municipal Employees – each file a federal LM-2 report each year. However, membership data is not broken out by state or employment sector (public vs. private). Fewer than 20 percent of NEA, AFT, and AFSCME state affiliates file LM reports.

What's more, there are often dozens (or more) of local branches of major unions. In Michigan, for example, there are more than 50 local UAW branches alone. Gathering highly localized membership data from the unions that do not file LM reports is nearly impossible – and even for those that do, it is an enormous challenge.

Appendix B: Data disparities and other issues

The primary challenge associated with this undertaking is in reconciling the sometimes wide disparities in how jurisdictions present the requested information. Some of these disparities were alluded to above, under "How we process the data." In the interest of transparency, we present here a more complete catalog of disparities and data issues. For each, we note the following:

1. The nature of the disparity.
2. How we reconciled that disparity in order to incorporate the data into our wider data set.

-
- ❖ Anaheim, California (city):
 - Agency-fee payer figures were not reported separately.
 - ❖ Bakersfield, California (city):
 - Specific dues totals were not provided and are, therefore, not reflected in our data.
 - Membership figures were provided for each pay period for each requested month. We included only the last pay period of each month in our data.
 - Agency-fee payer figures were not reported separately.
 - ❖ Fontana, California (city):
 - Agency-fee payer figures were not reported separately.